What is claimed is:

1. A slider unit with a built-in moving-coil linear motor, comprising a bed supporting thereon a magnet yoke, a table movable in a sliding manner with respect to the bed, a pair of field magnets arranged on inwardly facing surfaces of confronting sections of the magnet yoke in such a manner that poles on either field magnet alternate in polarity along a moving direction of the table and also like poles confront each other across an air gap between the field magnets, and a moving-coil assembly mounted to the table to lie in the air gap between the confronting field magnets, wherein the moving-coil assembly is composed of an iron core of platy-configuration extending in the air gap along the moving direction, and at least one set of three-phase armature coils wound in a direction intersecting the moving direction, whereby a current in the armature coils interacts electromagnetically with a field flux created by the field magnets to force the table moving with respect to the bed.

2. A slider unit with a built-in moving-coil linear motor constructed as recited in claim 1, wherein the confronting sections of the magnet yoke is connected to each other along any one side of widthwise opposing sides thereof.

3. A slider unit with a built-in moving-coil linear motor constructed as recited in any one of claims 1 and 2, wherein the table is arranged for a sliding movement with respect to the bed through a linear motion guide unit, which is comprised of a guide rail mounted to the bed, and a sliding element fixed to the table.

4. A slider unit with a built-in moving-coil linear motor constructed as recited in any one of claims 1 to 3, wherein the moving-coil assembly is supported by arms extending from the table through a sidewise opening left at another side of the confronting sections of the magnet yoke.

5. A slider unit with a built-in moving-coil linear motor constructed as recited in any one of claims 1 to 4, wherein the moving-coil assembly is composed of more than one set of armature coils and each set of armature coils corresponds to one pole width.

6. A slider unit with a built-in moving-coil linear motor constructed as recited in any one of claims 1 to 5, wherein the iron core is formed in a rectangular platy-configuration in cross section and made longer than an overall length of the armature coils, but set at a length roughly equivalent to a

summation of several times the pole width in the field magnets and a half the pole width, and further the iron core is fixed at its fore-and-aft ends to the arms.

7. A slider unit with a built-in moving-coil linear motor constructed as recited in any one of claims 1 to 6, wherein any adjoining poles of field magnets are chamfered off at their corners coming into abutment against each other and facing the air gap.

8. A slider unit with a built-in moving-coil linear motor constructed as recited in any one of claims 1 to 7, wherein the iron core is made of a lamination of thin steel sheets overlaid one on another.